

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,250	09/09/2003	Jaap Herman van't Hoff	7913-038-999	4047
EIQU & DICU	7590 10/22/2007		EXAM	IINER
FISH & RICHARDSON, P.C. 1425 K Street, N.W. 11th Floor Washington, DC 20005-3500			RIVELL, JOHN A	
			ART UNIT	PAPER NUMBER
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			MAIL DATE	DELIVERY MODE
			10/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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1	Application No.	Applicant(s)			
	10/657,250	VAN'T HOFF, JAAP HERMAN			
Office Action Summary	Examiner	Art Unit			
	John Rivell	3753			
The MAILING DATE of this communication app Period for Reply	pears on the cover sheet with the	correspondence address			
A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING D - Extensions of time may be available under the provisions of 37 CFR 1.1 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period of Failure to reply within the set or extended period for reply will, by statute Any reply received by the Office later than three months after the mailine earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATIO 136(a). In no event, however, may a reply be ti will apply and will expire SIX (6) MONTHS fror a, cause the application to become ABANDON	N. imely filed n the mailing date of this communication. ED (35 U.S.C. § 133).			
Status					
1) Responsive to communication(s) filed on 8/21.	/07 (RCE).				
,	s action is non-final.				
, —					
Disposition of Claims					
4) ☐ Claim(s) 11,13,14,17-25,27 and 28 is/are pend 4a) Of the above claim(s) is/are withdra 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) 11,13,14,17-25,27 and 28 is/are reject 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or are subject.	wn from consideration.				
Application Papers					
9) The specification is objected to by the Examine		Eveminer			
10) The drawing(s) filed on is/are: a) acc Applicant may not request that any objection to the					
Replacement drawing sheet(s) including the correct		·			
11) The oath or declaration is objected to by the Ex					
Priority under 35 U.S.C. § 119					
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority application from the International Burea * See the attached detailed Office action for a list	ts have been received. ts have been received in Applica rity documents have been receiv u (PCT Rule 17.2(a)).	tion No ved in this National Stage			
Attachment(s)					
1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date					
3) Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date	5) Notice of Informal 6) Other:				
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A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 26, 2007 (amendment after Final) has been entered.

Claims 1-10, 12, 15, 16 and 26 have been canceled. Claims 11, 13, 14, 17-25 and new claims 27 and 28 remain pending.

The amendment filed July 26, 2007 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: "... extending from the second surface are <u>leg members</u> to guide the plunger..."

The specification, as originally filed, as well as the parental applications in their entirety (including the originally filed foreign application) fail to set forth with any written or pictorial specificity "leg members" extending from the second surface to guide the plunger.

In the originally filed application, the specification sets forth at pages 5-7 that the plunger 8 includes a "second subsurface 36" (spec page 7, line 15). As illustrated in figure 1, this "second subsurface 36" is shown as the entirety of the surface on the left side of plunger 8, which is exposed to pressure in chamber 6. Nowhere is their support for the now disclosed "leg members" extending from the surface 36.

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As shown the plunger 8 is guided along the wall of the second chamber 6 by a leftward extending annular wall of the plunger 8, which wall contains seal 26 sealing the second pressure chamber 6. Assuming applicant intended the recitation of "leg members" to read as this annular wall of the plunger, such is in error as the annular wall is not disclosed as being formed by plural "leg members".

In either event there is no support in the application as originally filed for the newly added disclosure concerning "leg members" guiding the plunger, as added in the amendment of July 26, 2007.

Applicant is required to cancel the new matter in the reply to this Office Action.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 27 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In the application, as originally filed (as well as in all parental applications) the written specification fails to identify and discuss any structural features and/or criticality of the now claimed "leg members to guide the plunger along the walls of the second chamber, the leg members extending from the second surface" of the plunger, as is now recited in claim 27. Additionally, there are not plural "walls" along which are guided the

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plunger as is now recited in claim 27. From a thorough review, the newly added recitation concerning "leg members" is considered to be new matter.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13 and 28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 recites the limitation "the upper and lower extreme positions in "lines 1-2. In claim 11 as amended, the "upper" and "lower" were amended to read "first" and "second", respectively. There is insufficient antecedent basis for the limitation (the upper and lower extreme" in the claim.

Claim 28 recites the limitation "the opening" in line 21. There is insufficient antecedent basis for this limitation in the claim and in the rejection below, the recitation is taken to mean the "first opening".

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 11, 13, 14, 17-21, 25, 27 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cruysberghs (U. S. Pat. No. 5,368,207), the embodiment of figures 8-9 in view of the embodiment of figures 3, further in view of Alfons (U. S. Pat. No. 5,285,931).

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In the patent to Cruysberghs, the embodiment of the device of figs. 8-9 discloses a "pressure control device (generally at 134, figure 8) for maintaining a constant predetermined excess pressure in a fluid dispensing container (10), which device (134) comprises a first chamber (166), a fluid connection (via valve 144, chamber 152 and port 136a) between the first chamber (140) and the container (10), wherein the fluid connection comprises a first opening (opening 138a) in the sidewall (at plate 138) of the first chamber, a valve (at 144) with a closing member (rod 144) for releasing and closing said fluid connection and a resilient pressure element (gas pressure in chamber 150) exerting said predetermined excess pressure onto the closing member in a closing direction, the resilient pressure element comprising a second chamber (150; defined as the entire chamber encompassed by the left end of body 136 to the left surface of plunger 146) being filled with a gas at the predetermined excess pressure and relative to which the closing member (144) is movable, the second chamber is provided with a second opening (read at the right otherwise open end of the cylinder enclosing space 152), the closing member (144) extending from the first chamber (140) through the first and second opening (on opposite sides of plate 138) to the second chamber (to the left of plate 138), a first subsurface (the right end of rod 144 at 144a) of the closing member being situated in the first chamber (140) and a second subsurface (the left face of plunger 146) of the closing member (144) being situated in the second chamber (as defined above), the first chamber (140) being filled with a gas at a pressure higher than said predetermined excess pressure (in chamber 150), the size of the first subsurface (e.g. the end of stem 144 at 144a extending within the first chamber 140) is substantially smaller than the size of the second subsurface (the right face of plunger 146), such that the gas pressure in the first chamber (140) results in that the force on the first subsurface (the end of the stem 144 at 144a extending within and therefore subject to

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fluid pressure within first chamber 140) is smaller than the force on the second subsurface (the right face of plunger 146) resulting from the predetermined excess pressure (within chamber 150), while in use the first opening (at valve 144) is released if the fluid pressure in the container (10) drops below the predetermined excess pressure (in chamber 150), so that gas flows from the first chamber (140) to the container (10) and the pressure in the container (10) increases until the first opening (at valve 144) is closed again by the closing member (144) as a result of the increased pressure in the container (10 acting on the right face of plunger 146), wherein the second chamber (150) consists of a cylinder (e.g. the external wall(s) of the body 136) which is closed at a first (left) end and of which a second (right) end constitutes said second opening (closed off by plate 138), and the closing member (144) comprises a plunger (146) movable in axial direction of the cylinder so as to change the volume of the second chamber (150), and wherein the closing member (at valve 144) is movable in a reciprocated manner between a first (open) extreme position and a second (closed) position, whereby the fluid connection is closed, which first and second extreme positions are defined by an axial extend [extent] of a... recess (i.e. the axial length distance between positions where the seal 142 contacts the surface of rod 144 at the opposite ends of groove 144b) in the valve (stem) and the release (open) position of the closing member is defined between the first and second closing positions" as recited in claim 11.

The embodiment of figures 8 and 9 if Cruysberghs thus discloses all the claimed features with the exception of having a "circumferential" groove at groove 144b as well as "the second subsurface (of the plunger, e.g. the left facing surface of plunger 146 of Cruysberghs) forms a cavity in the plunger of the closing member".

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Firstly, the patent to Alfons discloses that it is known in the art to employ a "circumferential recess" at recess 17 surrounding the valve rod 10 for the purpose of providing the largest cross sectional area for flow through the valve thus avoiding the hindrance to flow an otherwise smaller cross sectional area would present.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in the embodiment of figures 8 and 0 of Cruysberghs a "circumferential recess" at groove 144b for the purpose of providing the largest cross sectional area for flow through the valve thus avoiding the hindrance to flow the otherwise smaller cross sectional area of groove 144b would present as recognized by Alfons.

Secondly, the embodiment of fluid piston at figure 3 of Cruysberghs discloses that it is known in the art to employ a piston element, responsive to fluid pressure thus acting as an actuator from one side and acting as a valve on the opposite side, which actuator side of the piston includes a "cavity" at 50 for the purpose of providing a larger volume for the "second" gas pressure chamber which, relative to the smaller volume chamber at 150 of Cruysberghs, would allow for limited fluid pressure leakage across the seal of the plunger maintaining a constant pressure value in the pressure chamber.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in the embodiment of figures 8 and 9 of Cruysberghs, a "cavity" in the plunger 146, on the pressure chamber 150 side of the plunger 146 for the purpose of providing a larger volume for the "second" gas pressure chamber 150 which, relative to the smaller volume chamber at 150 of Cruysberghs, would allow for limited fluid pressure leakage across the seal 148 of the plunger 146 of Cruysberghs while maintaining a constant pressure value in the pressure chamber 150 as recognized in the embodiment of piston element of figure 3 of Cruysberghs.

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Regarding claim 13, in Cruysberghs, as modified, "at the upper (first) and lower (second) extreme positions, a gas seal is formed by contact between a first sealing ring (138 of Cruysberghs) and an outer edge of the closing member" at opposing ends of groove 17 taught by Alfons, as recited.

Regarding claim 14, in Cruysberghs, as modified, "the closing member (of Cruysberghs) comprises a stem (144) with the circumferential recess (taught by groove 17 of Alfons)" as recited.

Regarding claim 17, in Cruysberghs, as modified, "the plunger (146 of Cruysberghs) is sealed by an outer second sealing ring (148) with respect to the inner wall of the second chamber (150)" as recited.

Regarding claim 18, in Cruysberghs, as modified, "a sidewall of the cylinder, at a position located outside the second chamber, is provided with an opening (136a) through which said fluid connection extends to the container (10)" as recited.

Regarding claim 19, in Cruysberghs, as modified, "the second chamber (150) is located outside the first chamber (140)" as recited.

Regarding claim 20, in Cruysberghs, as modified, "the closing member (at valve 144) is located substantially outside the first chamber (140)" as recited.

Regarding claim 21, in Cruysberghs, as modified, "the volume of the first chamber (140) is substantially greater than the volume of the second chamber (150)" as recited.

Regarding claim 25, in Cruysberghs, as modified, "a container (at container 10 is) provided with a device according to claim 11" as recited.

Regarding claim 27, Cruysberghs, as modified, "the plunger includes leg members (relative to the above rejection under §112 read as the annular wall of the piston surrounding cavity 50 of figure 3 of Cruysberghs), to guide the plunger (146)

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along the walls of the second chamber (150), the leg members (annular wall) extending from the second subsurface" as recited.

Regarding claim 28, the embodiment of figures 8 and 9 of Cruysberghs discloses a "pressure control device (at 134, fig. 8) for maintaining a constant predetermined excess pressure in an inner space of a fluid dispensing container (10), the pressure control device including: a cylinder (the body 136) having a closed first (left end) axial end and open second (right side otherwise closed off by plate 138) axial end; the second (right) axial end being adapted for fluid communication with a first chamber (140) by means of a first opening (138a); a closing member (at 144) comprising a plunger (at 146) having a stem (144) axially extending from one axial end of the plunger (146); a free end of the stem defines a first subsurface (read at the right end of the rod 144 at 144a) and an axial end of the plunger opposite the stem (read at the left face of plunger 146) defines a second subsurface; the closing member being engages for axial movement in the cylinder and defining a second chamber (150) between the second subsurface (the left face of plunger 146) on the opposite axial end of the plunger, and the first axial end of the cylinder and a space between the one axial end of the plunger and the first opening; the stem (144) extending into the first opening (at 138a) and being provided with a (groove 144a) located between the plunger (146) and the first subsurface (at 144a); the first opening (at 138a) is provided with a first sealing ring (142), which together with the stem (144) defines a valve and which first sealing ring (142) is positioned to extend either into the (groove 144a) of the stem (144) of the closing member to define a released (open) position of the valve or is adapted to engage the stem (144) to close the first opening (138a) and thereby defining a dosed position of the valve; a fluid connection being defined between a first chamber (140) and an inner space of a fluid dispensing container (10) by means of the first opening (138a),

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the space (at 152) and the opening (presumably the first opening 138a); the plunger (146) or an outer circumference between its axial ends is provided with a second seal ring (148) which constitutes a gas seal between the outer circumference of the plunger (146) and an inner circumferential surface of the cylinder; wherein a resilient pressure element (i.e. gas pressure within chamber 150) biases the closing member (144) into a closed portion of the valve" as recited.

The embodiment of figures 8 and 9 if Cruysberghs thus discloses all the claimed features with the exception of having a "circumferential" groove at groove 144b as well as "the second subsurface (of the plunger, e.g. the left facing surface of plunger 146 of Cruysberghs) forms a cavity in the plunger of the closing member".

Firstly, the patent to Alfons discloses that it is known in the art to employ a "circumferential recess" at recess 17 surrounding the valve rod 10 for the purpose of providing the largest cross sectional area for flow through the valve thus avoiding the hindrance to flow an otherwise smaller cross sectional area would present.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in the embodiment of figures 8 and 0 of Cruysberghs a "circumferential recess" at groove 144b for the purpose of providing the largest cross sectional area for flow through the valve thus avoiding the hindrance to flow the otherwise smaller cross sectional area of groove 144b would present as recognized by Alfons.

Secondly, the embodiment of fluid piston at figure 3 of Cruysberghs discloses that it is known in the art to employ a piston element, responsive to fluid pressure thus acting as an actuator from one side and acting as a valve on the opposite side, which actuator side of the piston includes a "cavity" at 50 for the purpose of providing a larger volume for the "second" gas pressure chamber which, relative to the smaller volume

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chamber at 150 of Cruysberghs, would allow for limited fluid pressure leakage across the seal of the plunger maintaining a constant pressure value in the pressure chamber.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in the embodiment of figures 8 and 9 of Cruysberghs, a "cavity" in the plunger 146, on the pressure chamber 150 side of the plunger 146 for the purpose of providing a larger volume for the "second" gas pressure chamber 150 which, relative to the smaller volume chamber at 150 of Cruysberghs, would allow for limited fluid pressure leakage across the seal 148 of the plunger 146 of Cruysberghs while maintaining a constant pressure value in the pressure chamber 150 as recognized in the embodiment of piston element of figure 3 of Cruysberghs.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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Claims 18 and 22-24 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-10 of U.S. Patent No. 6,616,017 in view of Cruysberghs ('207), the embodiment of piston in figure 3.

Although the conflicting claims are not identical, they are not patentably distinct from each other because all of the claimed features of instant application claims 18 and 22-24 are contained in one, or more, of claims 1-10 of U.S. Patent No. 6,616,017 with the exception of having "the second subsurface forms a cavity in the plunger of the closing member".

The embodiment of fluid piston at figure 3 of Cruysberghs discloses that it is known in the art to employ a piston element, responsive to fluid pressure thus acting as an actuator from one side and acting as a valve on the opposite side, which actuator side of the piston includes a "cavity" at 50 for the purpose of providing a larger volume for the "second" gas pressure chamber which, relative to the smaller volume chamber at 150 of Cruysberghs, would allow for limited fluid pressure leakage across the seal of the plunger maintaining a constant pressure value in the pressure chamber.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in the embodiment of the device of any one of claims 1-10 of U. S. Pat. No. 6,616,017 a "cavity" in the plunger, on the pressure chamber side of the plunger for the purpose of providing a larger volume for the "second" gas pressure chamber which, relative to the smaller volume chamber without such an enlarged volume, would allow for limited fluid pressure leakage across the seal

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of the plunger while maintaining a constant pressure value in the pressure chamber as recognized in the embodiment of piston element of figure 3 of Cruysberghs.

In response to applicants filing of a terminal disclaimer to obviate the above double patenting rejection, the terminal disclaimer filed on January 31, 2007 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U. S. Pat. No. 6,616,017 has been reviewed and is NOT accepted.

The person who signed the terminal disclaimer is not recognized as an officer of the assignee, and he/she has not been established as being authorized to act on behalf of the assignee. See MPEP § 324.

An attorney or agent, not of record, is not authorized to sign a terminal disclaimer in the capacity as an attorney or agent acting in a representative capacity as provided by 37 CFR 1.34 (a). See 37 CFR 1.321(b) and/or (c). The signor of the terminal disclaimer, Mr. Sean P. Daley, is not of record in this application.

It would be acceptable for a person, other than a recognized officer, to sign a terminal disclaimer, <u>provided</u> the record for the application includes a statement that the person is empowered to sign terminal disclaimers and/or act on behalf of the organization.

Accordingly, a new terminal disclaimer which includes the above empowerment statement will be considered to be signed by an appropriate official of the assignee. A separately filed paper referencing the previously filed terminal disclaimer and containing a proper empowerment statement would also be acceptable.

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It should be noted that applicant is <u>not</u> required to pay another disclaimer fee as set forth in 37 CFR 1.20(d) when submitting a replacement or supplemental terminal disclaimer.

Regarding applicants remarks filed July 26, 2007 as they may apply to the above, the embodiment of piston/plunger element of figure3 of Cruysberghs is believed to readily suggest to one of ordinary skill in the art the advantages of utilizing a piston element including a "cavity" in the face of the piston that, together with the dead end of the cylinder forms the gas pressure chamber relied on for proper operation in gas dispensers of the type claimed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Rivell whose telephone number is (571) 272-4918. The examiner can normally be reached on Mon.-Fri. from 6:30am-3:00pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Greg Huson can be reached on (571) 272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Primary Examiner
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